

REMARKS/ARGUMENTS

This Amendment and Response to Office Action is submitted in response to the office action mailed June 7, 2006. In the office action the Examiner entered certain objections and rejections under 35 U.S.C. §112, second paragraph. The Examiner rejected claims 1-15, 21, 24-26, and 28 under 35 U.S.C. §102(b) as being anticipated by Japanese Patent No. 11-117404 (hereinafter "Japan '404"). The Examiner rejected claims 1-15, 21, 24-26, and 28 under 35 U.S.C. §102(b) as being anticipated by Japanese Patent No. 5-9977 (hereinafter "Japan '977"). The Examiner rejected claims 16-19 under 35 U.S.C. §103(a) as being unpatentable over Japan '404 or Japan '977, in view of Japanese Patent 2000-27293 (hereinafter "Japan '293"). Claims 22-23 were rejected under 35 U.S.C. §103(a) over Japan '404 or Japan '977 in view of Japanese Patent 2000-265706 (hereinafter "Japan '706").

By this paper claims 1, 8, 10, 12, 19-21, and 25 have been amended. Claim 27 has been cancelled. Accordingly, claims 1-26 and 28 are presented for reconsideration and allowance by the Examiner.

Support for the amendments to claims 1, 10, 21, and 25 can be found throughout the specification and figures. Specifically air gaps between the core members and the rigid layer are illustrated in Figures 4-6 and described in the accompanying text. Air gaps between the core members are illustrated in Figure 5 and described in the accompanying text.

Objections and Rejections under 35 U.S.C. §112, Second Paragraph

The Examiner objected to claim 20 apparently on the basis of it containing method language. Claim 20 has been amended to remove the method language. The Examiner objected to claim 27, which has now been cancelled.

The Examiner rejected claims 8-9 under 35 U.S.C. §112, second paragraph arguing that the language "a variable width" was not clear. Applicant respectfully disagrees. Variable is defined as "characterized by variations." *Merriam-Webster's Collegiate Dictionary* (11th Ed.). The meaning of this term in the claimed context is set forth clearly in the specification and drawings. *See*, Specification, page 15, Para. 036 and Figure 2. Applicant submits that the

meaning of this claim is clear and that this rejection should be withdrawn.

The Examiner rejected claim 12 as lacking antecedent basis. Claim 12 has been amended to correct its dependency, and thus the antecedent basis issue.

The Examiner rejected claims 13-14 because “a bearing member is claimed” and it is argued that this is confusing in view of the bearing members claimed in claim 11. Applicant submits that claim 13 is proper in its present form. A plurality of bearing members is set forth in claim 11. Claim 13 simply defines the location at which one of those bearing members is positioned.

The Examiner also rejected claims 17-18 related to the air gap limitation. Once again, Applicant submits that these claims are in proper form. Claim 16 sets forth the fact that the apparatus has a plurality of air gaps. Claim 17 simply specifies the location of one of those air gaps.

With respect to claim 19, claim 10 has now been amended to include an air gap.

Rejections Under 35 U.S.C. 102(b)

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131 (*quoting Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Id.* (*quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1671, 1673 (Fed. Cir. 1994)). In addition, “the reference must be enabling and describe the applicant’s claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention.” *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Rejection of Claims 1-15, 21, 24-26, and 28 Over Japan '404

The claims as presented include an air gap positioned between the two core members or between the core members and the rigid layer. Generally, the air gap is used in order to minimize the friction between the core members and the buckling restraining assembly. Specification, Para [024]. In some cases the air gaps may be positioned between the core members in order to increase the performance of the apparatus.

Japan '404 fails to teach or suggest an air gap. The illustrations of the cited patent appear to show the free volume within the exterior steel pipe (5) completely filled with concrete (2). The patent appears to teach a film to prevent sticking between the steel core and the concrete. In the present invention as claimed, this function is provided by an air gap rather than a film. Thus, the Japan '404 reference fails to teach each and every claimed element and the claims are not anticipated by this reference.

Rejection of Claims 1-15, 21, 24-26, and 28 Over Japan '977

The Examiner also rejected the claims over Japan '977. The claims are distinguishable from this reference, among other reasons, for essentially the same reasons they are distinguishable from Japan '404. Japan '977 appears to teach a support tube (6) having steel cores (2) positioned within the support tube. An anti-stick coat (3) is provided on the steel core. The remaining volume of the interior of the support tube (6) appears to be filled with concrete (1). There is no teaching or suggestion of an air gap positioned within the support tube.

Accordingly, the claims are not anticipated by Japan '977 because each and every element of the claims is not taught by this reference.

Rejections Under 35 U.S.C. §103(a)

A determination of obviousness is based on the factual inquiries of: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

"The legal concept of *prima facie* obviousness is a procedural tool [that] ... allocates who has the burden of going forward with production of evidence in each step of the examination process." MPEP §2142. A *prima facie* case of obviousness is established only if the Examiner shows that (1) there is some teaching, suggestion, or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference; (2) there is a reasonable expectation of success; and (3) the prior art teaches or suggests all of the claim elements. MPEP §2143.03. Specifically, "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984).

Furthermore, "hindsight reconstruction [cannot be used] to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988). "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). As noted by the Federal Circuit Court of Appeals in *Ecolchem, Inc., v. Southern California Edison Company*, 227 F.3d 1361, 1371 (Fed. Cir. 2000), "Our case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references." Therefore, "when determining the patentability of a claimed invention which combines two known elements, 'the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Id.* (quoting *In re Beattie*, 974 F.2d 1309, 1311-12 (Fed. Cir. 1992)).

Rejection of Claims 16-19 in view of Japan '404, Japan '977 and Japan '293

The Examiner rejected claims 16-19 under 35 U.S.C. §103(a) over Japan '404, Japan '977, and Japan '293. In the rejection the Examiner acknowledges that Japan '404 and '977 fail to teach air gaps being disposed between the buckling restraining assembly and the core members. The Examiner goes on to argue that Japan '293 provides an air gap.

However, Japan '293 fails to disclose a brace of the type claimed. Japan '293 relates to a

“thin, light, and inexpensive buckling prevention brace.” *See*, Japan ‘293 partial English abstract provided by Examiner. Japan ‘293 provides a flat steel plate (2) placed within a buckling stiffening member (4), which appears to be a steel pipe or case similar to that disclosed in the other Japanese references. There is no teaching of a rigid (concrete) material placed within the steel pipe or case. To place such a concrete material within the brace apparatus would defeat its expressed objective of being thin and light.

It would not be obvious to combine that reference with the other cited references to form the present invention. First, as discussed above, Japan ‘293 is a different type of brace than that taught by the other references. Japan ‘293 is a brace not containing concrete within the interior of the steel exterior tube. Thus, Japan ‘293 states that it provides a thin and light brace. This is in contrast to the concrete filled braces of Japan ‘404 and ‘977 references. Thus, it would not be obvious to look thin braces containing no concrete to modify concrete containing braces.

Also, Japan ‘293 relates to a brace having a single core member. *See*, Fig. 3 of Japan ‘293. There does not appear to be any teaching or suggestion to combine the teachings of this single core brace with the other references cited by the Examiner.

In addition, the Japan ‘404 and ‘977 references are directed to buckling restraining braces. The braces taught appear to include a steel center member which is housed within a buckling-constraining concrete member. The concrete is in turn housed within a steel outer member. One of the features of both references is the use of an adhesion-preventive film or anti-stick coating placed between the concrete and the steel center member.

These references teach and illustrate an interface between the concrete and the steel member. An “interface” is “a surface forming a common boundary of two bodies, spaces, or phases.” *Merriam-Webster’s Collegiate Dictionary*. That is, these references illustrate contact between the steel member and the concrete, but for the fact that the film or anti-stick coat is placed between the two materials.

As noted by the Examiner, these references fail to teach or suggest the use of an air gap between the core member and the buckling restraining assembly to prevent bonding of the assembly to one or more portions of the core member. Indeed, the use of an air gap would defeat the purpose of the adhesion-preventive film or anti-stick coating since it would be unable to prevent the steel member from adhering to the concrete. Thus, there is no teaching or suggestion


to combine these references with another reference that may show an air gap. In fact, these references teach away from combination with a reference which would not require an adhesion-preventive film or anti-stick coating. "It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)." MPEP 2145 (X) (D) (2).

Rejection of Claims 22-23 in view of Japan '404, Japan '977 and Japan '293

Applicant incorporates by reference the discussion above concerning claims 16-19. Since claims 22-23 depend from claim 21 which includes the air gap, the same arguments apply.

In view of the foregoing, Applicant respectfully submits that each of the pending claims is now in condition for immediate allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to contact the undersigned.

Respectfully submitted,


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